Seegrid

Navigating Technology

Not all automated guided vehicles (AGVs) and autonomous mobile robots (AMRs) navigate the same way. Faced with the need to move material consistently and reliably in a dynamic, ever-changing environment, you need a solution that works safely and will adapt to your facility over time.
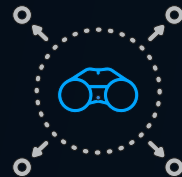
How Do Autonomous Robots Navigate?

LiDAR-BASED NAVIGATION

LiDAR operates like a laser pointer on a turntable—it spins while emitting pulses of infrared light on a horizontal plane, which provides a distance measurement with precision.

A LiDAR sensor can only see objects in-line with its beams and is blind to anything above or below it.

VISION-BASED NAVIGATION

Individually equipped with our proprietary computer vision system, Seegrid Palion AMRs see a three-dimensional world just like humans do.

Seegrid's AI-based algorithm collects and prioritizes massive amounts of real-world, live data points, enabling Seegrid robots to reliably navigate in busy, ever-changing environments.
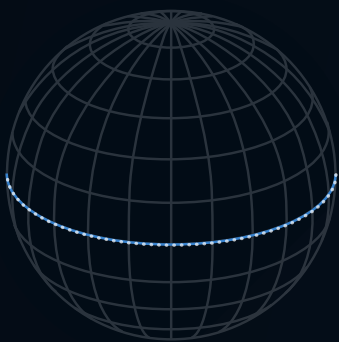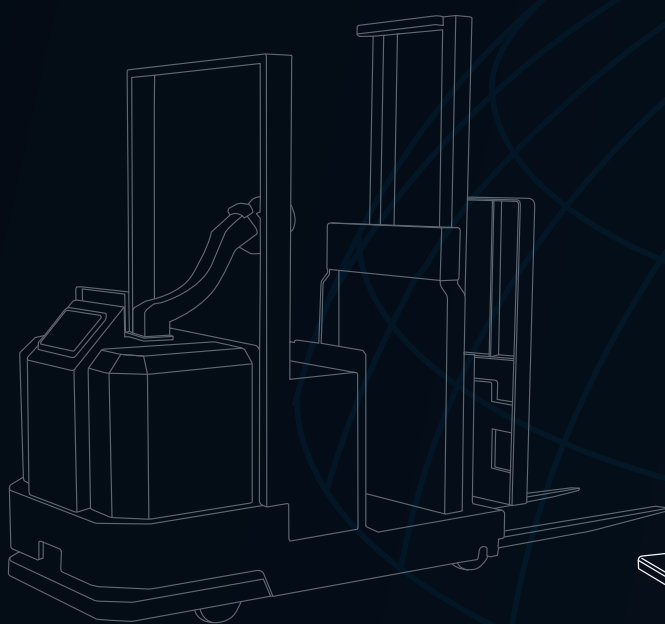
LiDAR emits pulses of infrared light in one or more horizontal planes

SENSOR FUSION

Palion AMRs see and process more data, collecting a higher density of information for an extremely accurate understanding of their immediate surroundings.

RELIABILITY

With a limited number of data points, relying on lasers alone to navigate is prone to failure in constantly changing environments.

FLEXIBILITY

Route changes often require production to shut down and an engineer to implement.

RELIABILITY

With thousands of data points, Palion AMRs navigate seamlessly in high-traffic, dynamic industrial facilities.

FLEXIBILITY

Route changes can be made while production is running by simply driving the robot to train the new route.